

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listing of claims in the application.

1. (Currently Amended) A system for cooling a sealed portion of a flexible container, the system comprising:

a transferring arrangement for transferring one or more containers;

a platform constructed and arranged to revolve about a shaft and to receive one or more containers thereon; and

a plurality of cooling arrangements comprising

one or more gripping mechanisms for gripping the containers, and

~~one or more cooling mechanisms for cooling one or more sealed portions of the containers;~~

wherein the cooling arrangements are constructed and arranged to cool the sealed portions of the containers while the containers are being transferred, wherein the cooling arrangements ~~comprise~~ includes:

a pair of ~~gripping cooling~~ cooling components constructed and arranged to secure the sealed portion therebetween, including,

a fixed cooling component and a displaceable cooling component, wherein the displaceable cooling component is selectively displaceable between an open position for receiving a container and a closed position for securing the container between the fixed cooling component and the displaceable cooling component.

a supply mechanism for providing a cooling fluid to at least one cooling component,

a removal mechanism for removing the cooling fluid from at least one cooling component, and

wherein the system further comprises an actuator constructed and arranged to move the displaceable cooling component away from the fixed cooling component,

wherein the cooling assembly further comprises an arm connected to the fixed cooling component; and

the actuator comprises a plurality of cooling rods, each cooling rod connected to at least one other cooling rod,

wherein at least two cooling rods are pivotally connected to the arm and at least one cooling rod is connected to the displaceable cooling component,

wherein the removal mechanism removes the cooling fluid from the cooling component after the cooling fluid has thermally interacted with the ~~gripping~~ cooling components.

2. (Currently Amended) The system according to claim 1, wherein the cooling fluid flows within the ~~gripping~~ cooling components and thermally interacts with the sealed portions.

3. (Cancelled)

4. (Previously Presented) The system according to claim 1, wherein the cooling arrangements further comprise a discharge mechanism for discharging the cooling fluid from the cooling arrangement.

5. (Cancelled)

6. (Previously Presented) The system of claim 1, wherein a platform is constructed and arranged to revolve about a shaft and wherein the supply mechanism and the removal mechanism are at least partially within the shaft.

7. (Previously Presented) The system of claim 1, wherein each of the supply mechanism and the removal mechanism comprises a flexible tube.

8. (Previously Presented) The system of claim 1, wherein each of the supply mechanism and the removal mechanism is connected to a cooling component.

9. (Previously Presented) The system of claim 1, wherein the cooling fluid comprises water at a temperature within a range of about 12°C to 20°C.

10. (Original) The system of claim 1, wherein the gripping mechanism comprises a pincer.

11. (Original) The system of claim 1, wherein the gripping mechanism comprises a pincer constructed and arranged to be radially movable.

12. (Original) The system of claim 1, wherein the gripping mechanism comprises:

a pincer arrangement,

a sliding seat constructed and arranged to receive the pincer arrangement,

a roller connected to the pincer arrangement,

a support platform constructed and arranged to support the sliding seat, the support platform comprising a groove for receiving the roller, wherein the roller is slidably movable within the groove.

13. (Original) The system of claim 12, wherein the groove comprises a loop shape having a first portion having a first radius and a second portion having a second radius greater than the first radius, wherein the pincer arrangement is in an extended position when the roller is within the second portion of the groove and the pincer arrangement is in a retracted position when the roller is within the first portion of the groove.

14. (Original) The system of claim 13, wherein the pincer arrangement is constructed and arranged to grasp a container when the pincer arrangement is in the retracted position and further constructed and arranged to release the container when the pincer arrangement is in the extended position.

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Currently Amended) A system for cooling a sealed portion of a container, the system comprising:

a transferring arrangement for transferring one or more containers; and

a plurality of cooling arrangements being constructed and arranged to cool the sealed portions of the containers while the containers are being transferred, the cooling arrangements comprising

one or more gripping mechanisms for gripping the containers, and

~~one or more cooling mechanisms for cooling one or more sealed portions of the containers;~~

a fixed cooling component and a displaceable cooling component, wherein the displaceable cooling component is selectively displaceable between an open position for receiving a container and a closed position for securing the container between the fixed cooling component and the displaceable cooling component;

an arm connected to the fixed cooling component and the actuator comprises a plurality of cooling rods, each cooling rod connected to at least one other cooling rod, wherein at least two cooling rods are pivotally connected to the arm and at least one cooling rod is connected to the displaceable cooling component;

an actuator constructed and arranged to move the displaceable cooling component away from the fixed cooling component;

a platform constructed and arranged to revolve about a shaft;

a support beam on the platform at a predetermined distance from the shaft,

a movable support constructed and arranged to be slidably movable along the support beam, the movable support being connected to at least one cooling rod pivotally connected to the arm, and

a guide mechanism having a first end pivotally connected to the movable support and a second end pivotally connected to the shaft.

19. (Original) The system according to claim 18, wherein the guide mechanism further comprises a guide roller constructed and arranged to connect the guide mechanism to the movable support.

20. (Original) The system according to claim 1, wherein the cooling arrangements are constructed and arranged to transfer the container while cooling the sealed portion of the container.

21. (Previously Presented) The system of claim 12, wherein:
the cooling arrangement comprises a fixed cooling component and a displaceable cooling component, wherein the displaceable cooling component is selectively displaceable between an open position for receiving a container and a closed position for securing the container between the fixed cooling component and the displaceable cooling component; and
wherein the pincer arrangement comprises an open position coinciding with the open position of the displaceable cooling component, and a closed position coinciding with the closed position of the displaceable cooling component.

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)